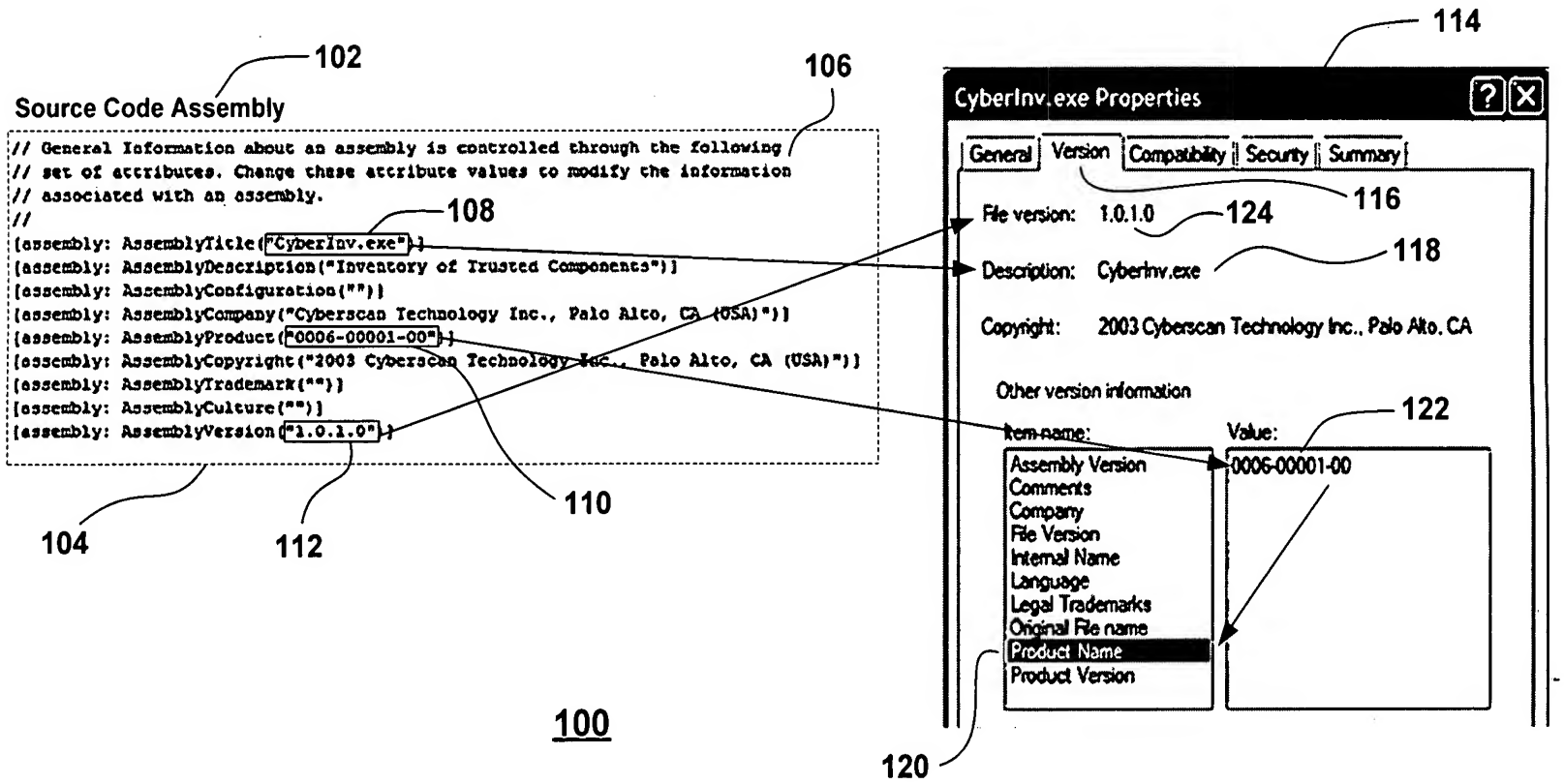

102
Source Code Assembly
106
// General Information about an assembly is controlled through the following
// set of attributes. Change these attribute values to modify the information
// associated with an assembly.
//
[assembly: AssemblyTitle("CyberInv.exe")]
[assembly: AssemblyDescription("Inventory of Trusted Components")]
[assembly: AssemblyConfiguration("")]
[assembly: AssemblyCompany("Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyProduct("0006-00001-00")]
[assembly: AssemblyCopyright("2003 Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyTrademark("")]
[assembly: AssemblyCulture("")]
[assembly: AssemblyVersion("1.0.1.0")]
108
104
112
110
114
CyberInv.exe Properties
General
Version
Compatibility
Security
Summary
116
File version: 1.0.1.0
124
Description: CyberInv.exe
118
Copyright: 2003 Cyberscan Technology Inc., Palo Alto, CA
Other version information
Item name:
Value:
122
Assembly Version
Comments
Company
File Version
Internal Name
Language
Legal Trademarks
Original File name
Product Name
Product Version
0006-00001-00
120
100

FIG. 1

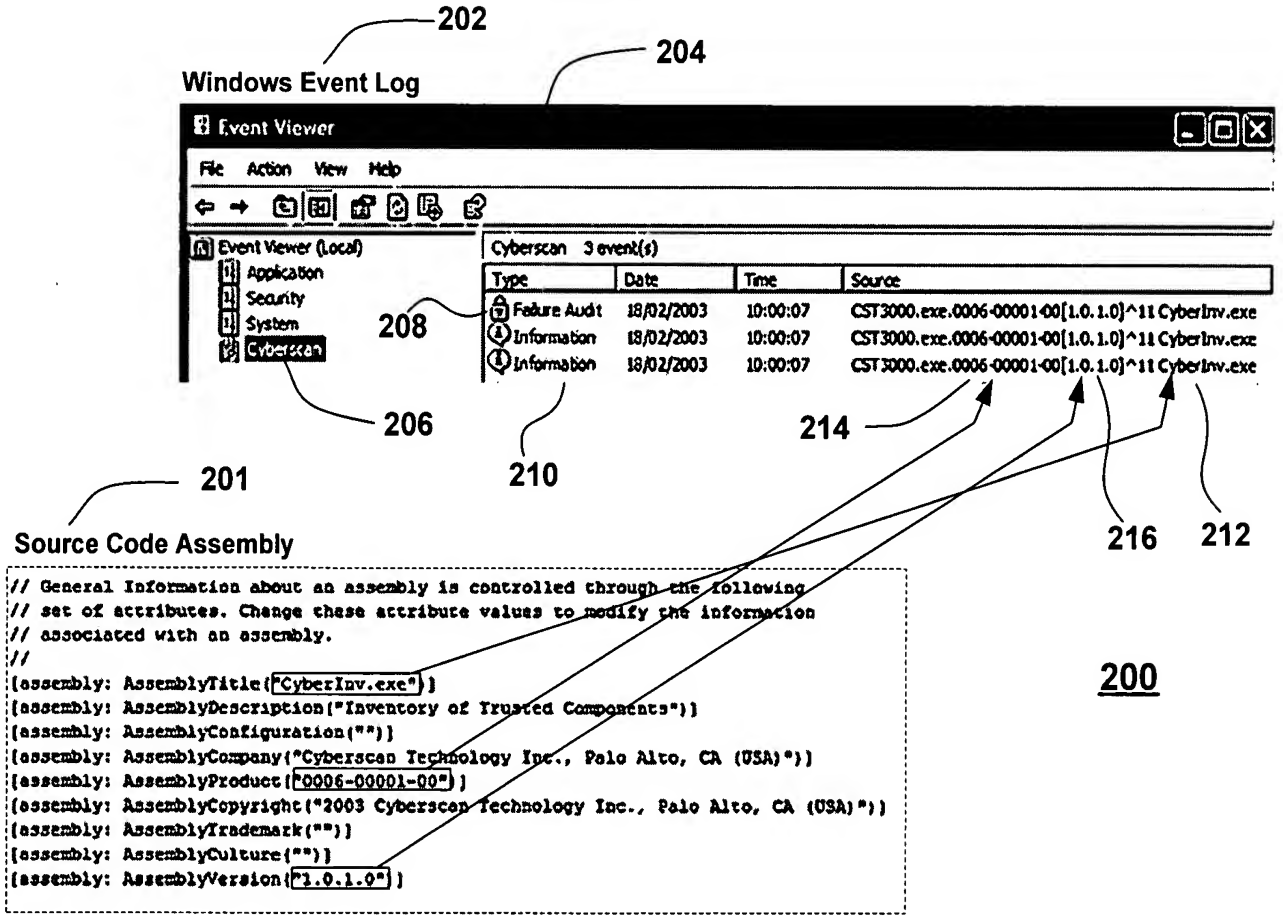

202
Windows Event Log
204
Event Viewer
File Action View Help
Event Viewer (Local)
Application
Security
System
Cyberscan
Cyberscan 3 event(s)
Type Date Time Source
Failure Audit 18/02/2003 10:00:07 CST3000.exe.0006-00001-00[1.0.1.0]^11 CyberInv.exe
Information 18/02/2003 10:00:07 CST3000.exe.0006-00001-00[1.0.1.0]^11 CyberInv.exe
Information 18/02/2003 10:00:07 CST3000.exe.0006-00001-00[1.0.1.0]^11 CyberInv.exe
208
206
210
214
216
212
201
Source Code Assembly
// General Information about an assembly is controlled through the following
// set of attributes. Change these attribute values to modify the information
// associated with an assembly.
//
[assembly: AssemblyTitle("CyberInv.exe")]
[assembly: AssemblyDescription("Inventory of Trusted Components")]
[assembly: AssemblyConfiguration("")]
[assembly: AssemblyCompany("Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyProduct("0006-00001-00")]
[assembly: AssemblyCopyright("2003 Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyTrademark("")]
[assembly: AssemblyCulture("")]
[assembly: AssemblyVersion("1.0.1.0")]
200

FIG. 2

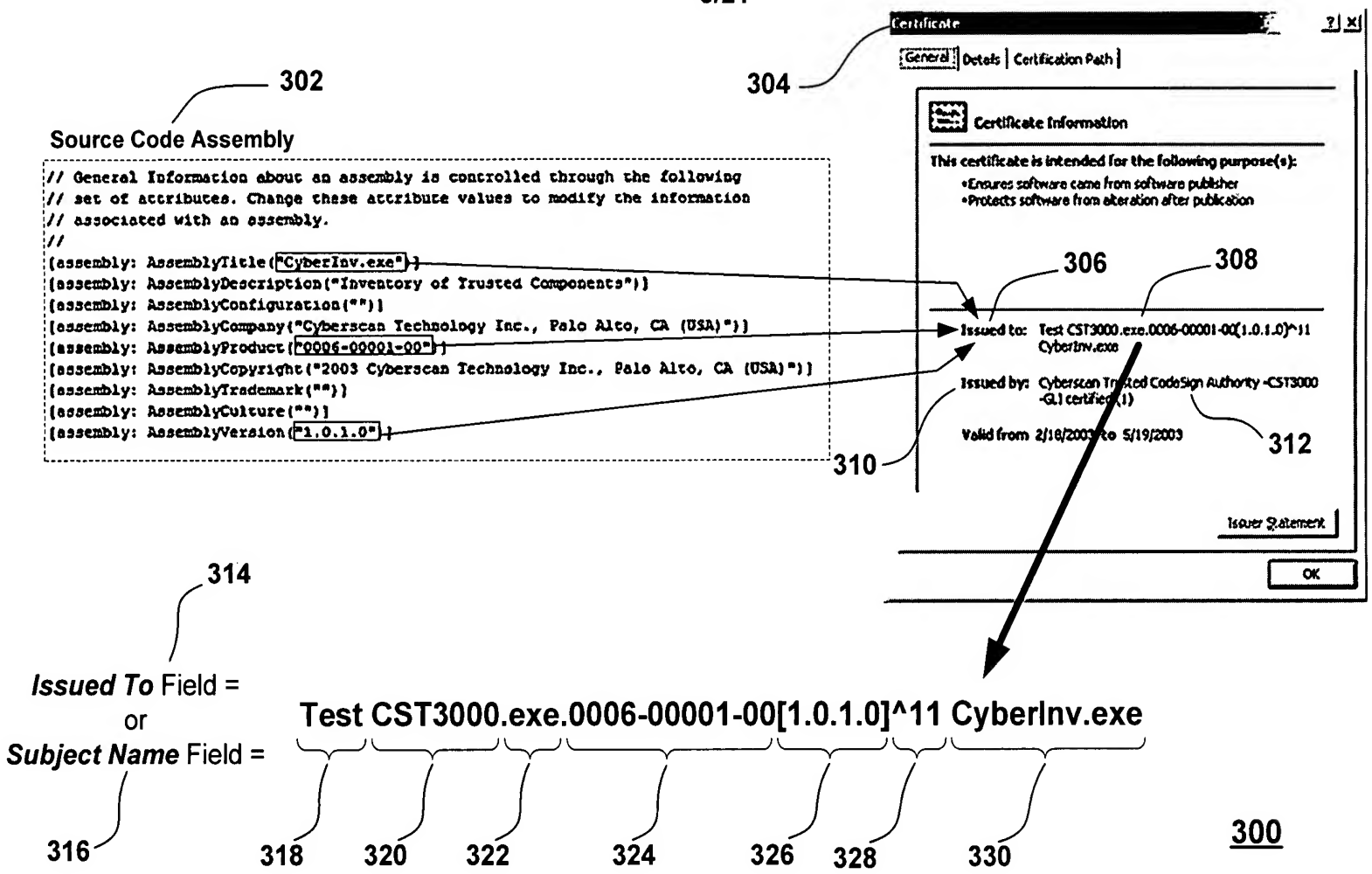

302
Source Code Assembly
// General Information about an assembly is controlled through the following
// set of attributes. Change these attribute values to modify the information
// associated with an assembly.
//
[assembly: AssemblyTitle("CyberInv.exe")]
[assembly: AssemblyDescription("Inventory of Trusted Components")]
[assembly: AssemblyConfiguration("")]
[assembly: AssemblyCompany("Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyProduct("0006-00001-00")]
[assembly: AssemblyCopyright("2003 Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyTrademark("")]
[assembly: AssemblyCulture("")]
[assembly: AssemblyVersion("1.0.1.0")]
304
Certificate
General
Details
Certification Path
Certificate Information
This certificate is intended for the following purpose(s):
•Ensures software came from software publisher
•Protects software from alteration after publication
306
308
Issued to: Test CST3000.exe.0006-00001-00[1.0.1.0]^11 CyberInv.exe
Issued by: Cyberscan Trusted CodeSign Authority -CST3000 -G1 certified (1)
Valid from 2/18/2003 to 5/19/2003
312
Issuer Statement
OK
310
314
Issued To Field =
or
Subject Name Field =
Test CST3000.exe.0006-00001-00[1.0.1.0]^11 CyberInv.exe
316
318
320
322
324
326
328
330
300

FIG. 3

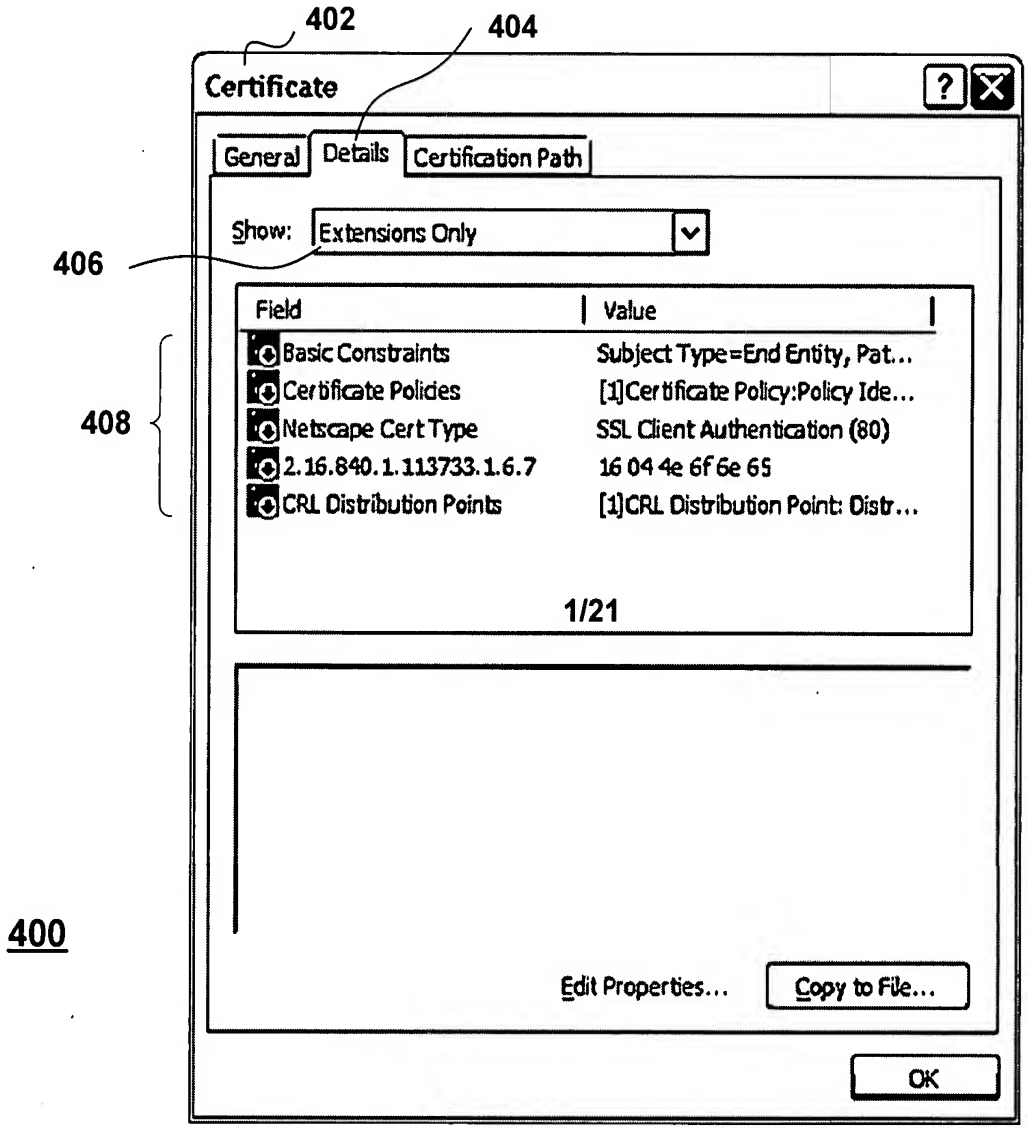

402
404
Certificate
General
Details
Certification Path
Show:
Extensions Only
406
Field
Value
Basic Constraints
Subject Type=End Entity, Pat...
Certificate Policies
[1]Certificate Policy:Policy Ide...
Netscape Cert Type
SSL Client Authentication (80)
2.16.840.1.113733.1.6.7
16 04 4e 6f 6e 65
CRL Distribution Points
[1]CRL Distribution Point: Distr...
408
1/21
400
Edit Properties...
Copy to File...
OK

FIG. 4

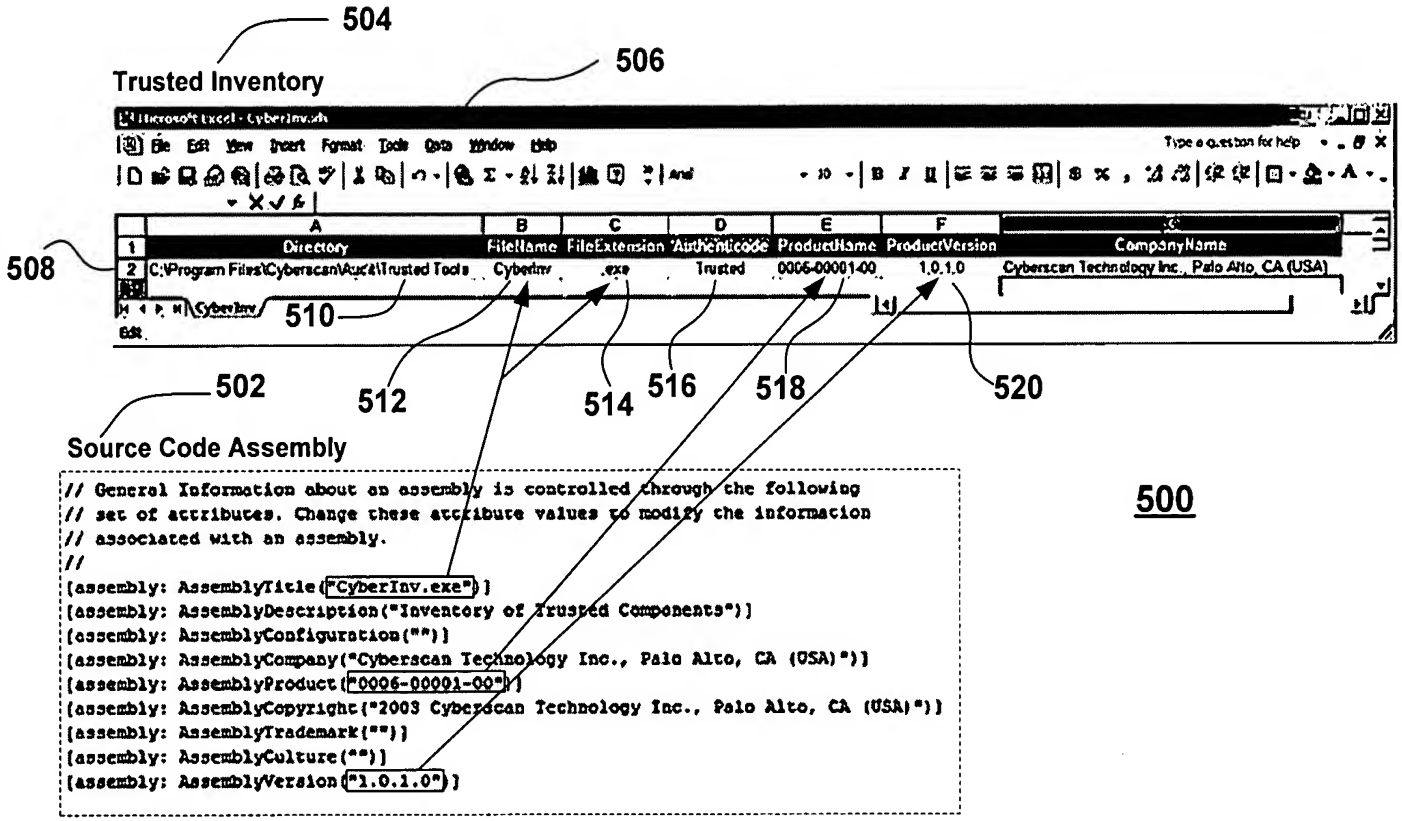

504
Trusted Inventory
506
508
510
502
Source Code Assembly
512
514
516
518
520
500
Directory
FileName
FileExtension
Authenticode
ProductName
ProductVersion
CompanyName
C:\Program Files\Cyberscan\Acme\Trusted Tools
CyberInv
.exe
Trusted
0006-00001-00
1.0.1.0
Cyberscan Technology Inc., Palo Alto, CA (USA)
// General Information about an assembly is controlled through the following
// set of attributes. Change these attribute values to modify the information
// associated with an assembly.
//
[assembly: AssemblyTitle("CyberInv.exe")]
[assembly: AssemblyDescription("Inventory of Trusted Components")]
[assembly: AssemblyConfiguration("")]
[assembly: AssemblyCompany("Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyProduct("0006-00001-00")]
[assembly: AssemblyCopyright("2003 Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyTrademark("")]
[assembly: AssemblyCulture("")]
[assembly: AssemblyVersion("1.0.1.0")]

FIG. 5

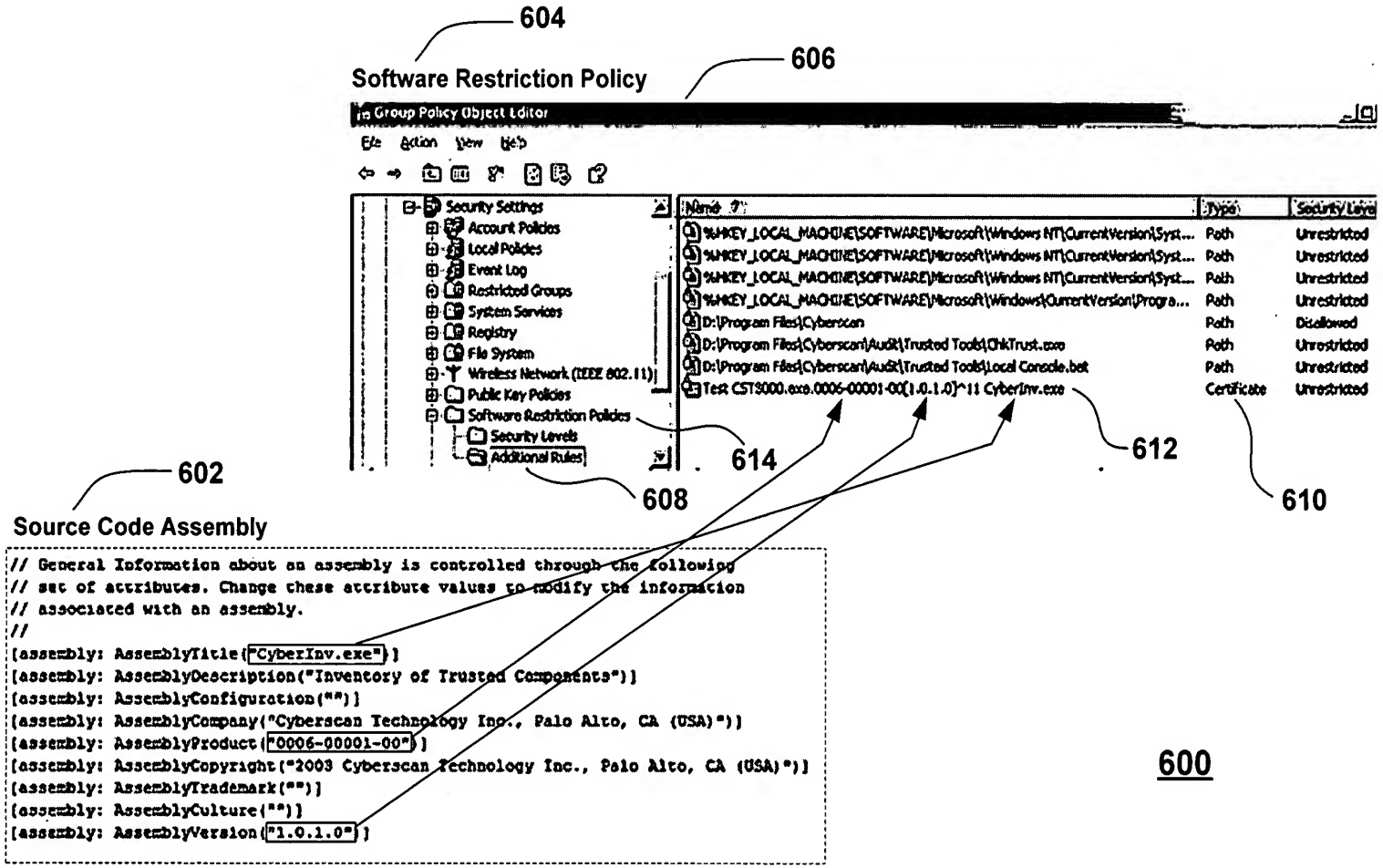
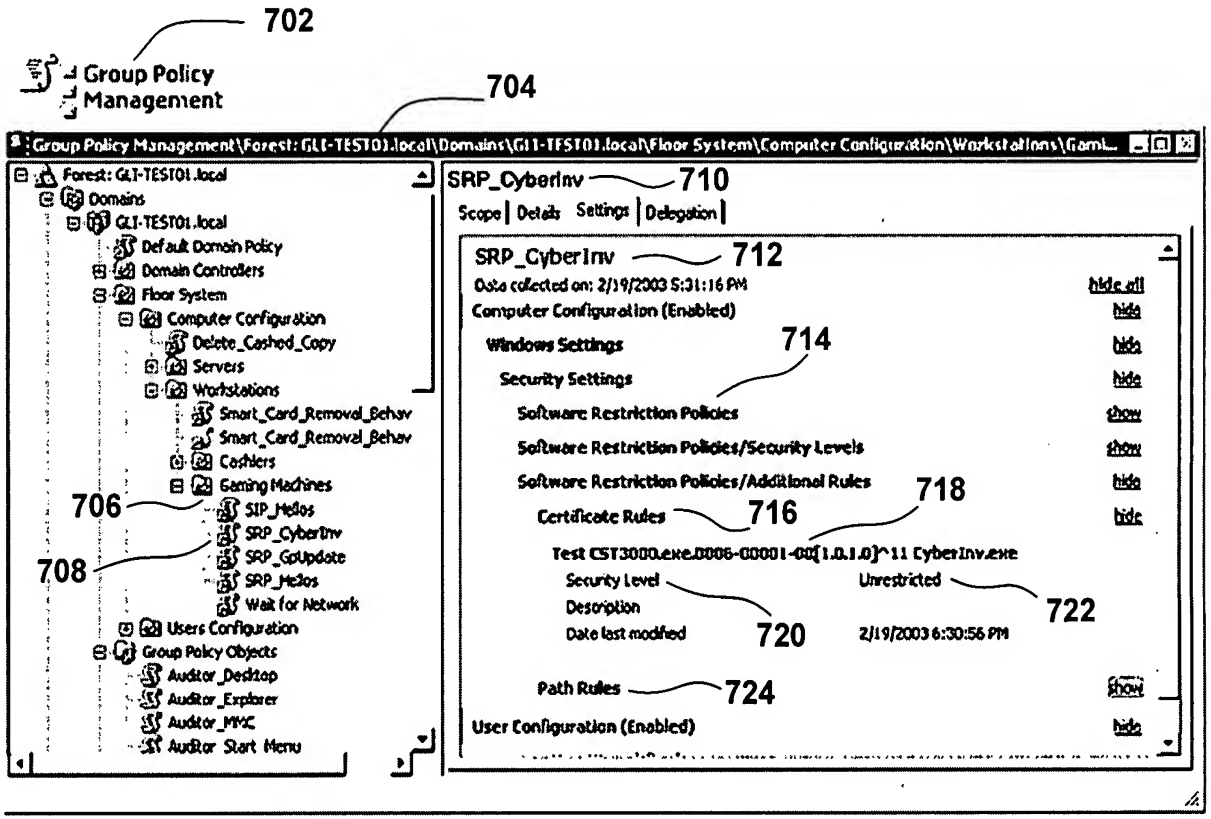

604
Software Restriction Policy
606
Group Policy Object Editor
File Action View Help
Security Settings
Account Policies
Local Policies
Event Log
Restricted Groups
System Services
Registry
File System
Wireless Network (IEEE 802.11)
Public Key Policies
Software Restriction Policies
Security Levels
Additional Rules
614
608
Name
Type
Security Level
%HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Syst... Path Unrestricted
%HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Syst... Path Unrestricted
%HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Syst... Path Unrestricted
%HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Progra... Path Unrestricted
D:\Program Files\Cyberscan Path Disallowed
D:\Program Files\Cyberscan\Audit\Trusted Tools\ChkTrust.exe Path Unrestricted
D:\Program Files\Cyberscan\Audit\Trusted Tools\Local Console.bat Path Unrestricted
Test CST3000.exe,0006-00001-00[1.0.1.0]^11 CyberInv.exe Certificate Unrestricted
612
610
602
Source Code Assembly
// General Information about an assembly is controlled through the following
// set of attributes. Change these attribute values to modify the information
// associated with an assembly.
//
[assembly: AssemblyTitle("CyberInv.exe")]
[assembly: AssemblyDescription("Inventory of Trusted Components")]
[assembly: AssemblyConfiguration("")]
[assembly: AssemblyCompany("Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyProduct("0006-00001-00")]
[assembly: AssemblyCopyright("2003 Cyberscan Technology Inc., Palo Alto, CA (USA)")]
[assembly: AssemblyTrademark("")]
[assembly: AssemblyCulture("")]
[assembly: AssemblyVersion("1.0.1.0")]
600

FIG. 6


702
Group Policy Management
704
Group Policy Management\Forest: GLI-TEST01.local\Domains\GLI-TEST01.local\Floor System\Computer Configuration\Workstations\Gami...
Forest: GLI-TEST01.local
Domains
GLI-TEST01.local
Default Domain Policy
Domain Controllers
Floor System
Computer Configuration
Delete_Cashed_Copy
Servers
Workstations
Smart_Card_Removal_Behav
Smart_Card_Removal_Behav
Cashiers
Gaming Machines
706
SIP_Helios
SRP_CyberInv
708
SRP_GoUpdate
SRP_Helios
Wait for Network
Users Configuration
Group Policy Objects
Auditor_Desktop
Auditor_Explorer
Auditor_MMC
Auditor_Start_Menu
SRP_CyberInv
710
Scope | Details | Settings | Delegation
SRP_CyberInv
712
Data collected on: 2/19/2003 5:31:16 PM
hide all
Computer Configuration (Enabled)
hide
Windows Settings
714
hide
Security Settings
hide
Software Restriction Policies
show
Software Restriction Policies/Security Levels
show
Software Restriction Policies/Additional Rules
hide
Certificate Rules
716
718
hide
Test CST3000.exe,0006-00001-00[1.0.1.0]^11 CyberInv.exe
Security Level
Unrestricted
Description
722
Date last modified
720
2/19/2003 6:30:56 PM
Path Rules
724
show
User Configuration (Enabled)
hide

700

FIG. 7

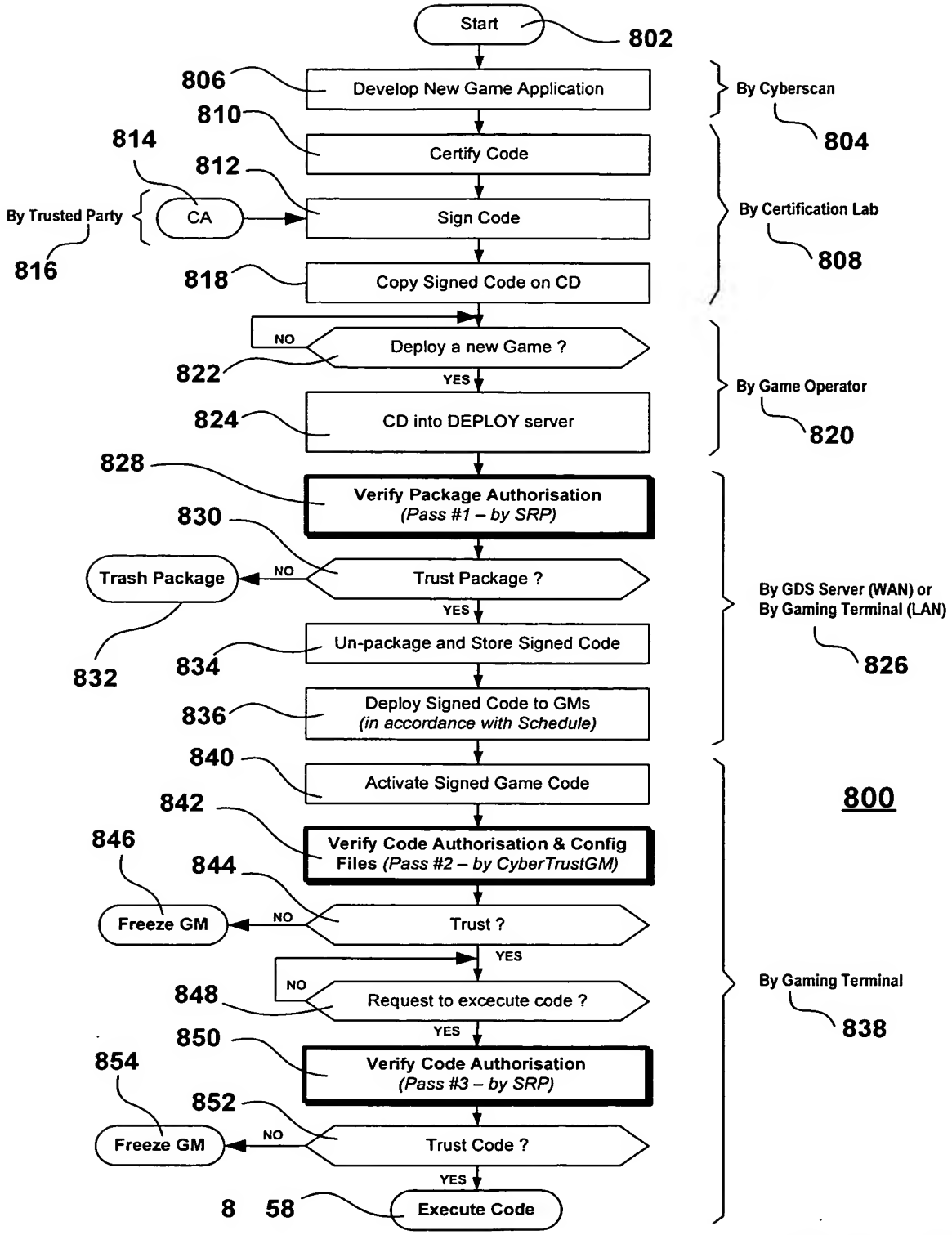

Start
802
806
Develop New Game Application
By Cyberscan
804
810
Certify Code
814
812
By Trusted Party
CA
Sign Code
By Certification Lab
808
816
818
Copy Signed Code on CD
NO
Deploy a new Game ?
822
YES
By Game Operator
820
824
CD into DEPLOY server
828
Verify Package Authorisation
(Pass #1 – by SRP)
830
Trash Package
NO
Trust Package ?
YES
By GDS Server (WAN) or
By Gaming Terminal (LAN)
826
832
834
Un-package and Store Signed Code
836
Deploy Signed Code to GMs
(in accordance with Schedule)
840
Activate Signed Game Code
800
842
Verify Code Authorisation & Config
Files (Pass #2 – by CyberTrustGM)
846
844
Freeze GM
NO
Trust ?
YES
NO
848
Request to excecute code ?
By Gaming Terminal
838
YES
850
Verify Code Authorisation
(Pass #3 – by SRP)
854
852
Freeze GM
NO
Trust Code ?
YES
8 58
Execute Code

FIG. 8

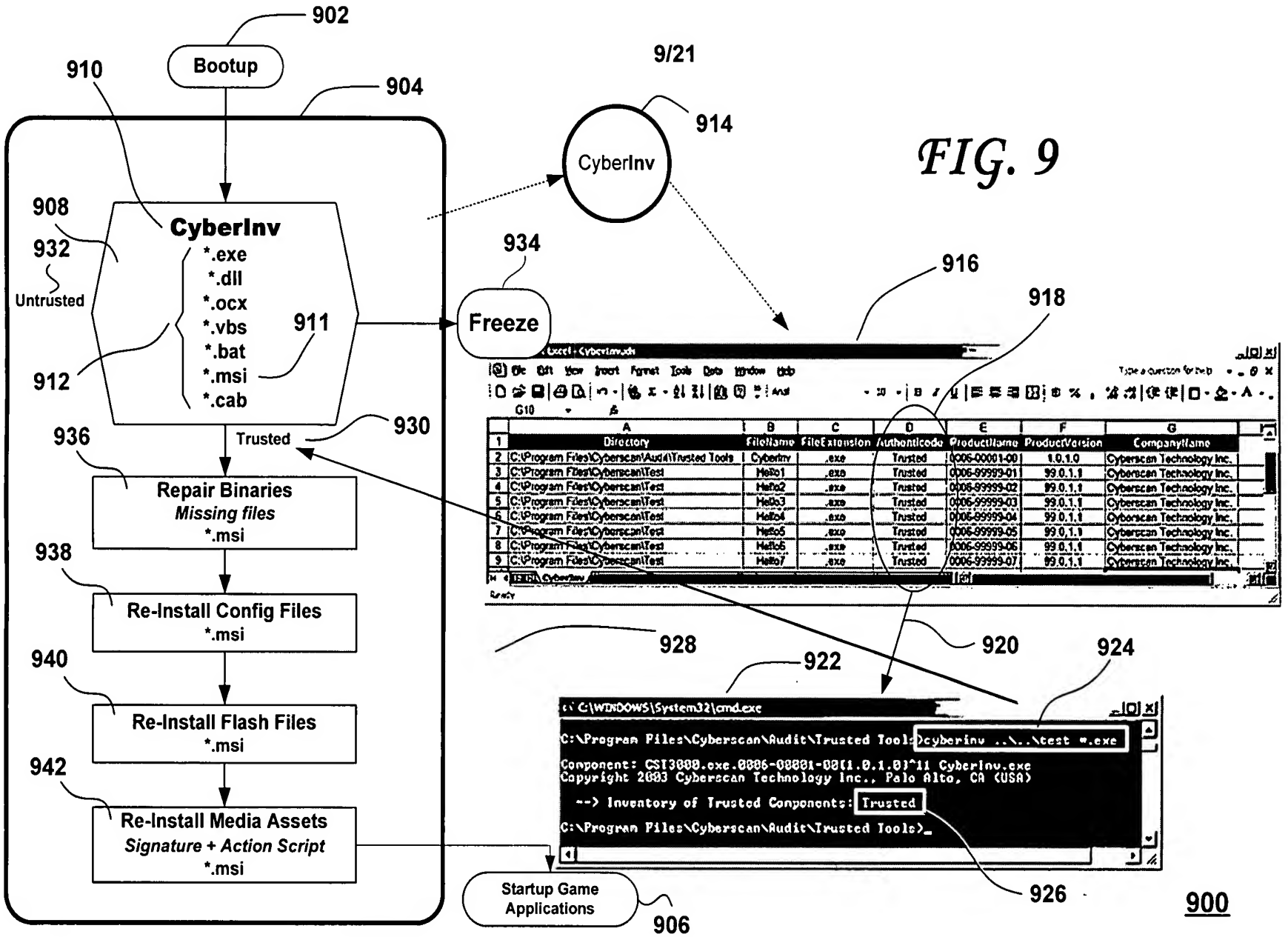

902
Bootup
910
904
914
CyberInv
908
CyberInv
*.exe
*.dll
*.ocx
*.vbs
*.bat
*.msi
*.cab
932
Untrusted
911
912
934
Freeze
916
918
930
Trusted
936
Repair Binaries
Missing files
*.msi
938
Re-Install Config Files
*.msi
940
Re-Install Flash Files
*.msi
942
Re-Install Media Assets
Signature + Action Script
*.msi
928
920
922
924
C:\WINDOWS\System32\cmd.exe
C:\Program Files\Cyberscan\Audit\Trusted Tools>cyberinv ..\..\test *.exe
Component: CSI3000.exe.0006-00001-00(1.0.1.0)^11 CyberInv.exe
Copyright 2003 Cyberscan Technology Inc., Palo Alto, CA (USA)
--> Inventory of Trusted Components: Trusted
C:\Program Files\Cyberscan\Audit\Trusted Tools>_
926
Startup Game Applications
906
900

FIG. 9

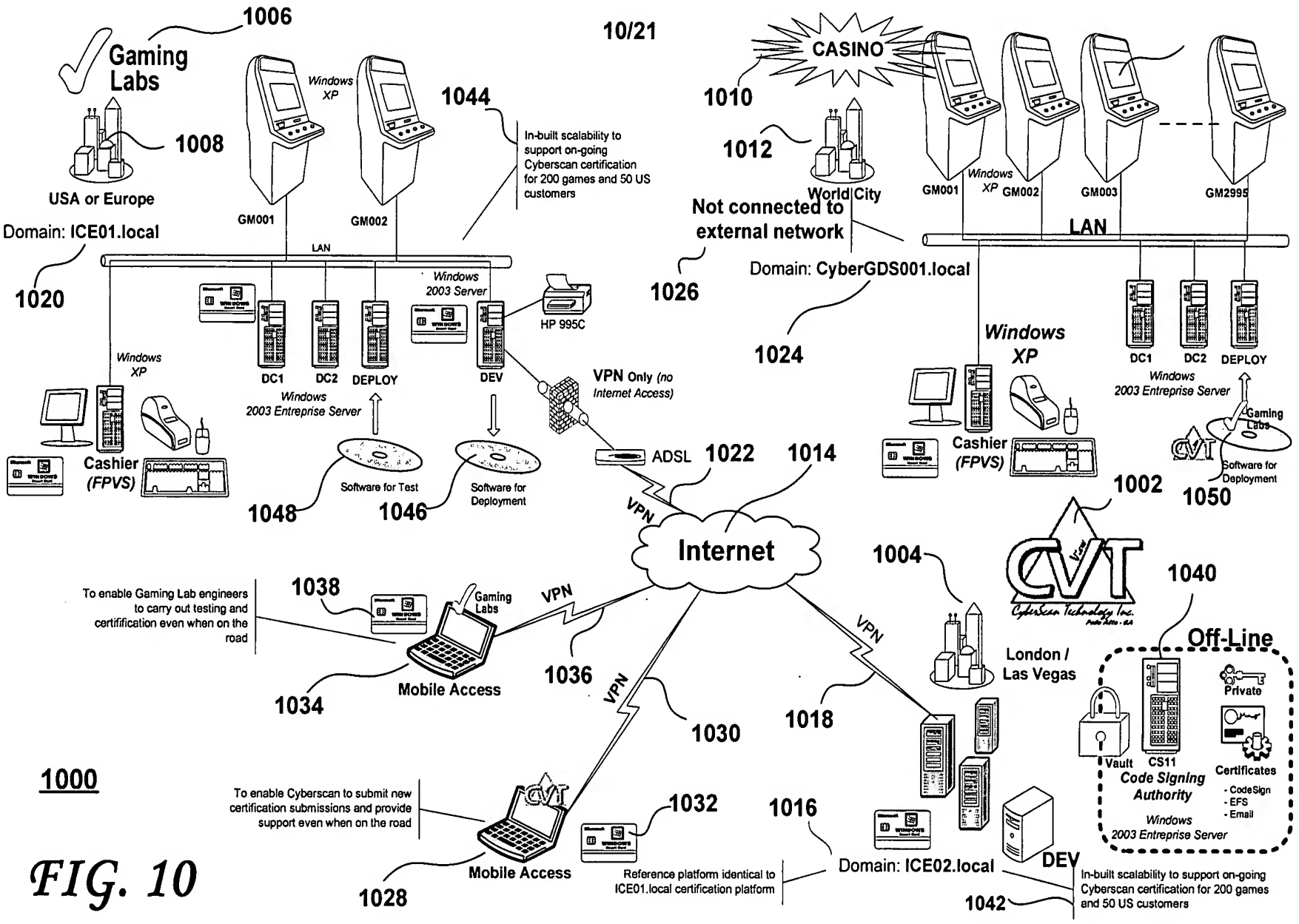
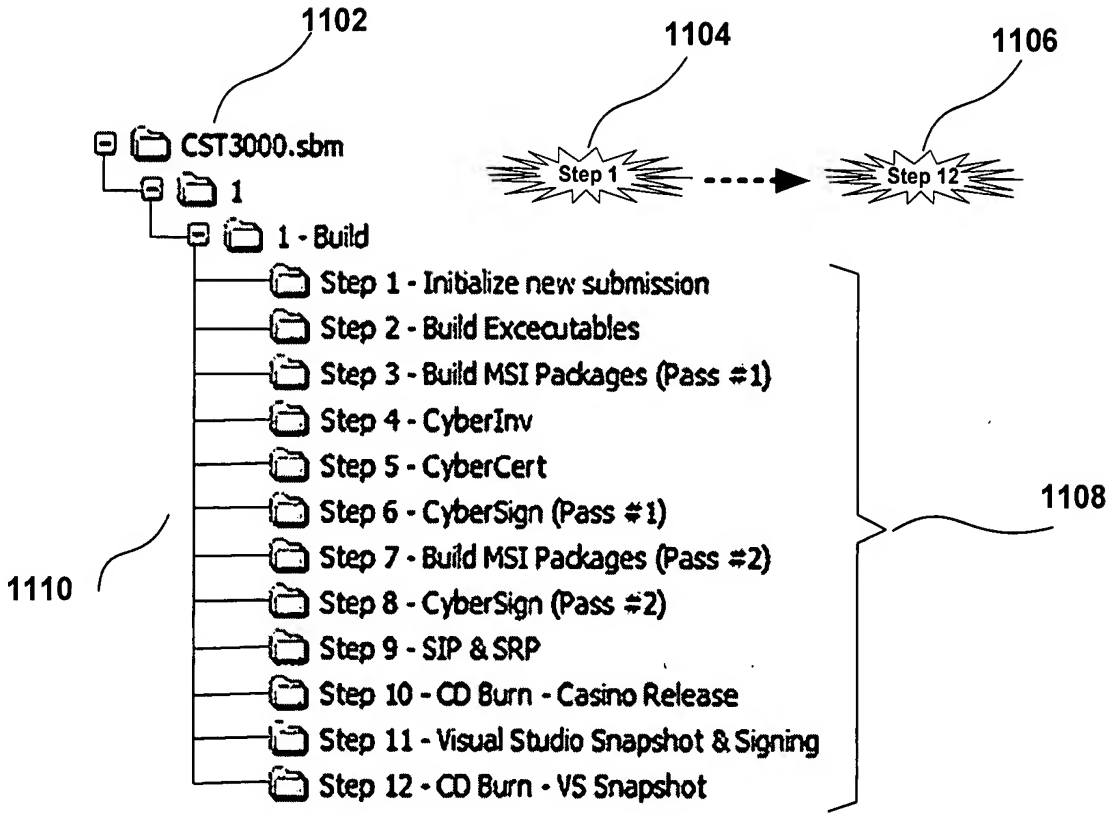

1006
Gaming Labs
1008
USA or Europe
Domain: ICE01.local
1020
Windows XP
GM001
GM002
1044
In-built scalability to support on-going Cyberscan certification for 200 games and 50 US customers
LAN
Windows 2003 Server
DC1
DC2
DEPLOY
DEV
HP 995C
VPN Only (no Internet Access)
Windows XP
Cashier (FPVS)
Windows 2003 Entreprise Server
Software for Test
Software for Deployment
1048
1046
ADSL
1022
1014
VPN
Internet
1038
To enable Gaming Lab engineers to carry out testing and certifiication even when on the road
Gaming Labs
VPN
1034
Mobile Access
1036
VPN
1030
To enable Cyberscan to submit new certification submissions and provide support even when on the road
1032
1028
Mobile Access
Reference platform identical to ICE01.local certification platform
1016
Domain: ICE02.local
DEV
1042
In-built scalability to support on-going Cyberscan certification for 200 games and 50 US customers
1000
CASINO
1010
1012
World City
Not connected to external network
1026
Domain: CyberGDS001.local
1024
GM001
GM002
GM003
GM2995
LAN
Windows XP
DC1
DC2
DEPLOY
Windows 2003 Entreprise Server
Gaming Labs
Software for Deployment
1050
Cashier (FPVS)
1002
1004
1040
VPN
1018
London / Las Vegas
Off-Line
Private
Vault
CS11
Code Signing Authority
Certificates
- CodeSign
- EFS
- Email
Windows 2003 Entreprise Server

FIG. 10


1102
1104
1106
CST3000.sbm
1
1 - Build
Step 1
Step 12
Step 1 - Initialize new submission
Step 2 - Build Excecutables
Step 3 - Build MSI Packages (Pass #1)
Step 4 - CyberInv
Step 5 - CyberCert
Step 6 - CyberSign (Pass #1)
Step 7 - Build MSI Packages (Pass #2)
Step 8 - CyberSign (Pass #2)
Step 9 - SIP & SRP
Step 10 - CD Burn - Casino Release
Step 11 - Visual Studio Snapshot & Signing
Step 12 - CD Burn - VS Snapshot
1108
1110

1100

FIG. 11

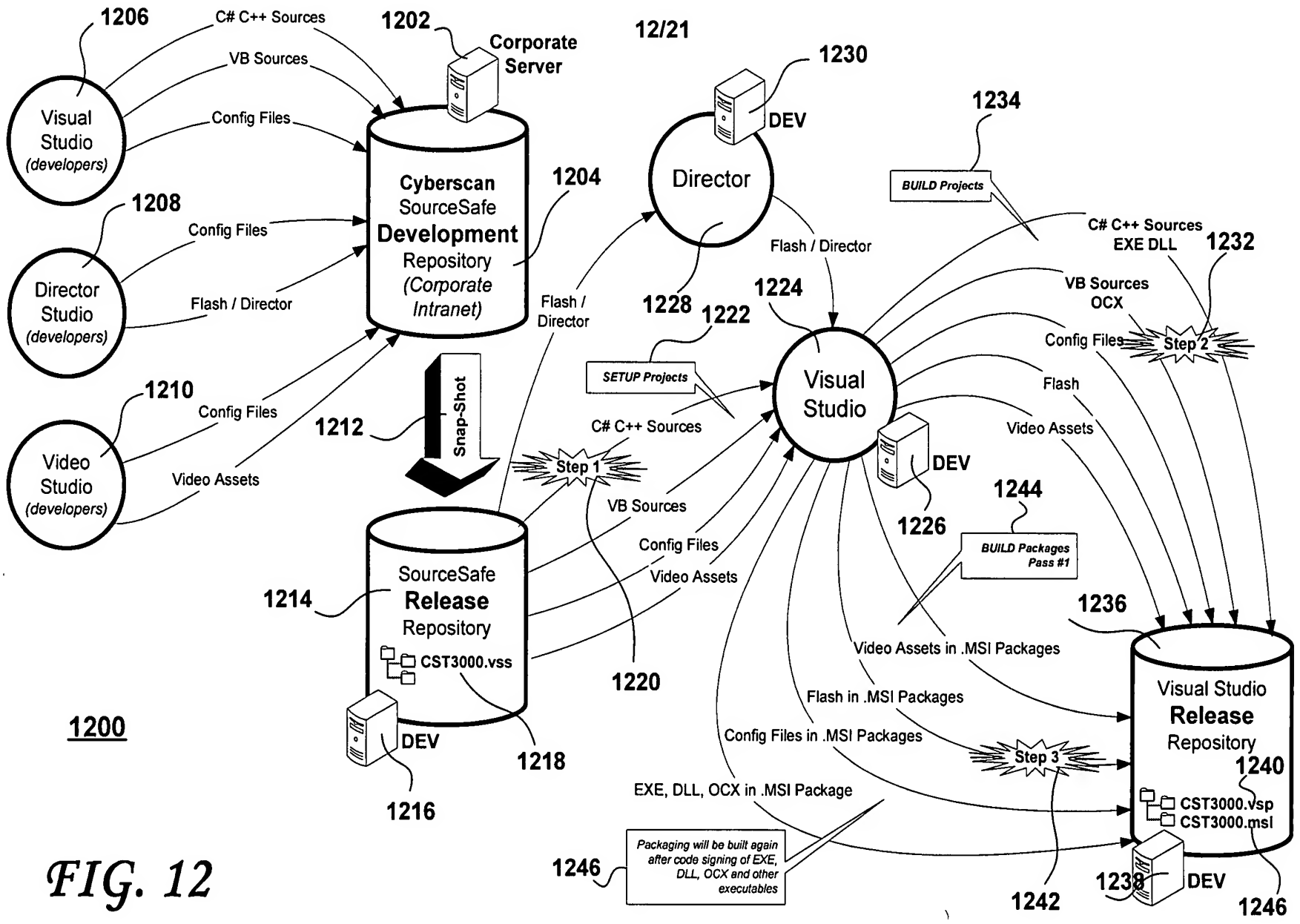

1206
C# C++ Sources
VB Sources
Config Files
Visual Studio (developers)
1202
Corporate Server
12/21
1230
DEV
Director
1234
BUILD Projects
1208
Config Files
Director Studio (developers)
Flash / Director
Cyberscan SourceSafe Development Repository (Corporate Intranet)
1204
Flash / Director
1228
1224
1222
SETUP Projects
Visual Studio
C# C++ Sources EXE DLL
1232
VB Sources OCX
Config Files
Step 2
Flash
Video Assets
1210
Config Files
Video Studio (developers)
Video Assets
1212
Snap-Shot
C# C++ Sources
Step 1
DEV
1226
1244
BUILD Packages Pass #1
VB Sources
Config Files
Video Assets
1214
SourceSafe Release Repository
CST3000.vss
1220
1236
Video Assets in .MSI Packages
Flash in .MSI Packages
Config Files in .MSI Packages
Step 3
Visual Studio Release Repository
1240
CST3000.vsp
CST3000.msi
1200
DEV
1218
1216
EXE, DLL, OCX in .MSI Package
Packaging will be built again after code signing of EXE, DLL, OCX and other executables
1246
1242
1238
DEV
1246

FIG. 12

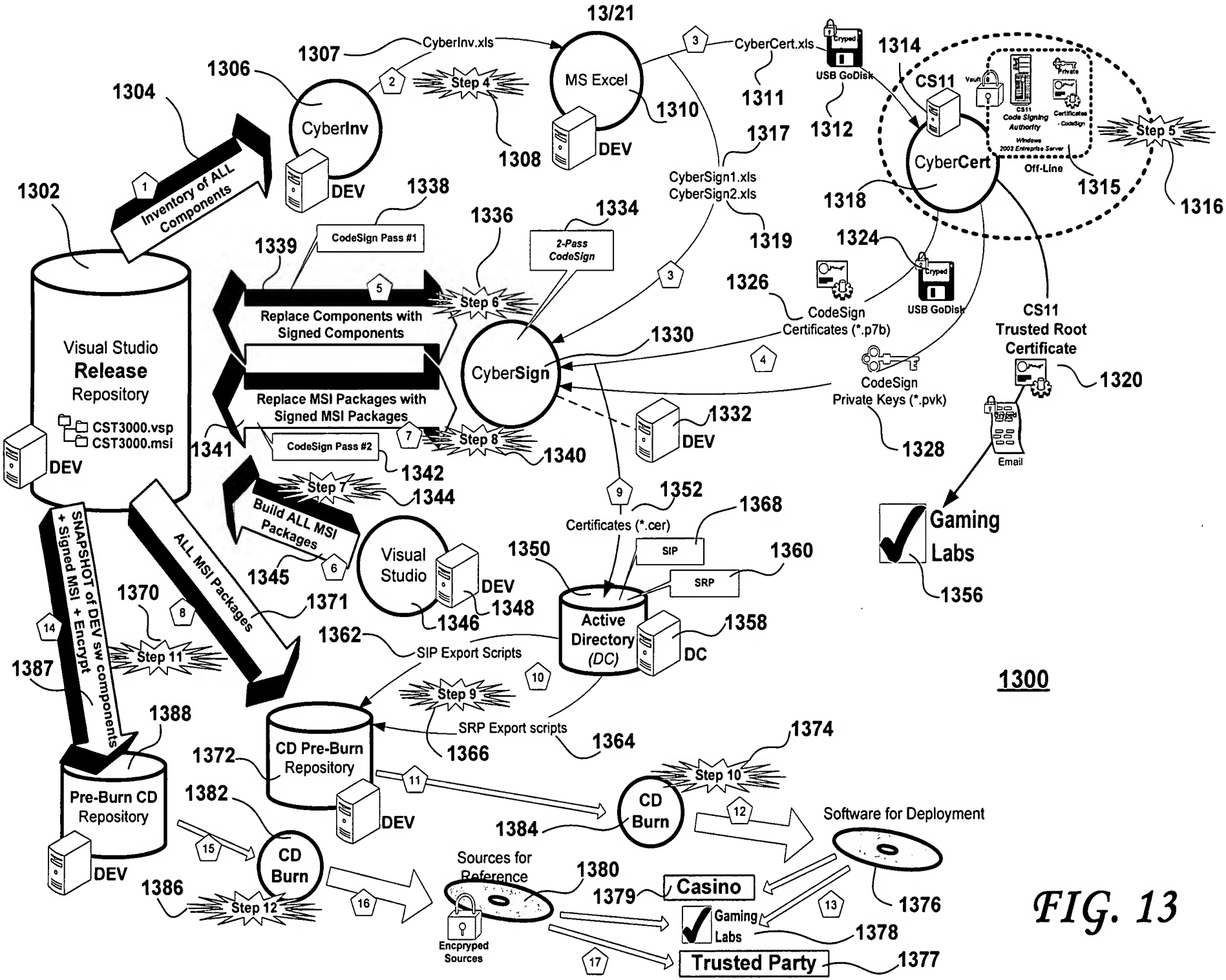

13/21
1307
CyberInv.xls
1306
1304
CyberInv
DEV
Step 4
1308
MS Excel
1310
DEV
3
CyberCert.xls
1311
1314
USB GoDisk
1312
CS11
CyberCert
Off-Line
Step 5
1315
1316
1317
CyberSign1.xls
CyberSign2.xls
1319
1318
1302
1
Inventory of ALL Components
1338
CodeSign Pass #1
1339
1336
1334
2-Pass CodeSign
5
Step 6
Replace Components with Signed Components
Replace MSI Packages with Signed MSI Packages
1341
CodeSign Pass #2
7
Step 8
1340
1342
Visual Studio Release Repository
CST3000.vsp
CST3000.msi
DEV
CyberSign
1330
1332
DEV
1324
1326
CodeSign Certificates (*.p7b)
USB GoDisk
CS11 Trusted Root Certificate
1320
4
CodeSign Private Keys (*.pvk)
1328
Email
Step 7
1344
Build ALL MSI Packages
6
1345
9
1352
Certificates (*.cer)
1368
SIP
1360
SRP
1350
Visual Studio
DEV
1348
1346
Active Directory (DC)
DC
1358
Gaming Labs
1356
1300
SNAPSHOT of DEV sw components + Signed MSI + Encrypt
ALL MSI Packages
14
1370
8
1371
Step 11
1362
SIP Export Scripts
1387
10
Step 9
SRP Export scripts
1366
1364
1388
1374
Step 10
1372
CD Pre-Burn Repository
DEV
11
Pre-Burn CD Repository
DEV
1382
CD Burn
1384
12
Software for Deployment
15
Sources for Reference
1380
1379
Casino
1376
13
Gaming Labs
1378
1386
Step 12
16
Encpryped Sources
17
Trusted Party
1377

FIG. 13

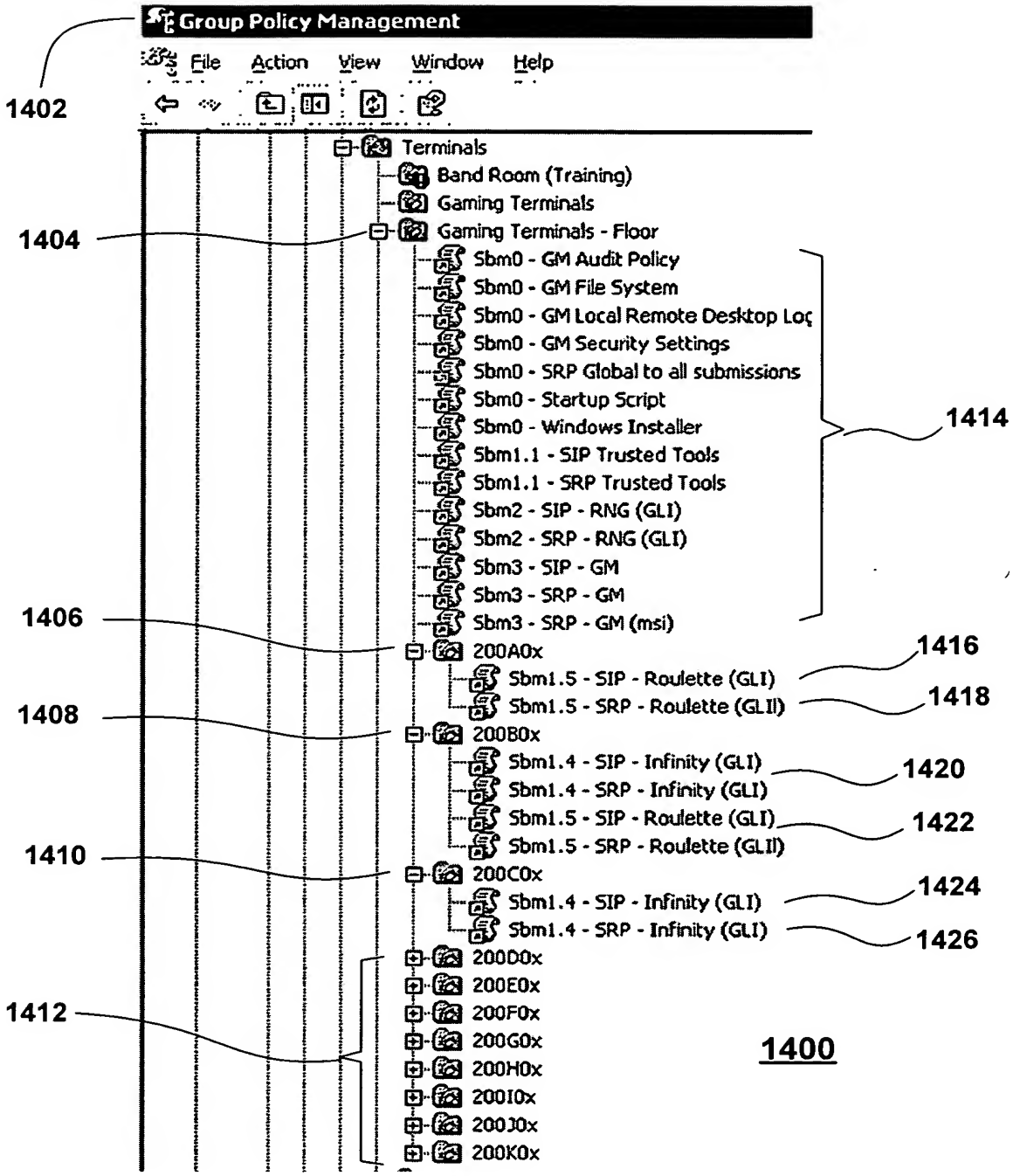

Group Policy Management
File Action View Window Help
1402
Terminals
Band Room (Training)
Gaming Terminals
1404
Gaming Terminals - Floor
Sbm0 - GM Audit Policy
Sbm0 - GM File System
Sbm0 - GM Local Remote Desktop Loç
Sbm0 - GM Security Settings
Sbm0 - SRP Global to all submissions
Sbm0 - Startup Script
Sbm0 - Windows Installer
Sbm1.1 - SIP Trusted Tools
Sbm1.1 - SRP Trusted Tools
Sbm2 - SIP - RNG (GLI)
Sbm2 - SRP - RNG (GLI)
Sbm3 - SIP - GM
Sbm3 - SRP - GM
Sbm3 - SRP - GM (msi)
1414
1406
200A0x
1416
Sbm1.5 - SIP - Roulette (GLI)
1418
Sbm1.5 - SRP - Roulette (GLII)
1408
200B0x
Sbm1.4 - SIP - Infinity (GLI)
1420
Sbm1.4 - SRP - Infinity (GLI)
Sbm1.5 - SIP - Roulette (GLI)
1422
Sbm1.5 - SRP - Roulette (GLII)
1410
200C0x
Sbm1.4 - SIP - Infinity (GLI)
1424
Sbm1.4 - SRP - Infinity (GLI)
1426
200D0x
200E0x
1412
200F0x
200G0x
200H0x
200I0x
200J0x
200K0x
1400

FIG. 14

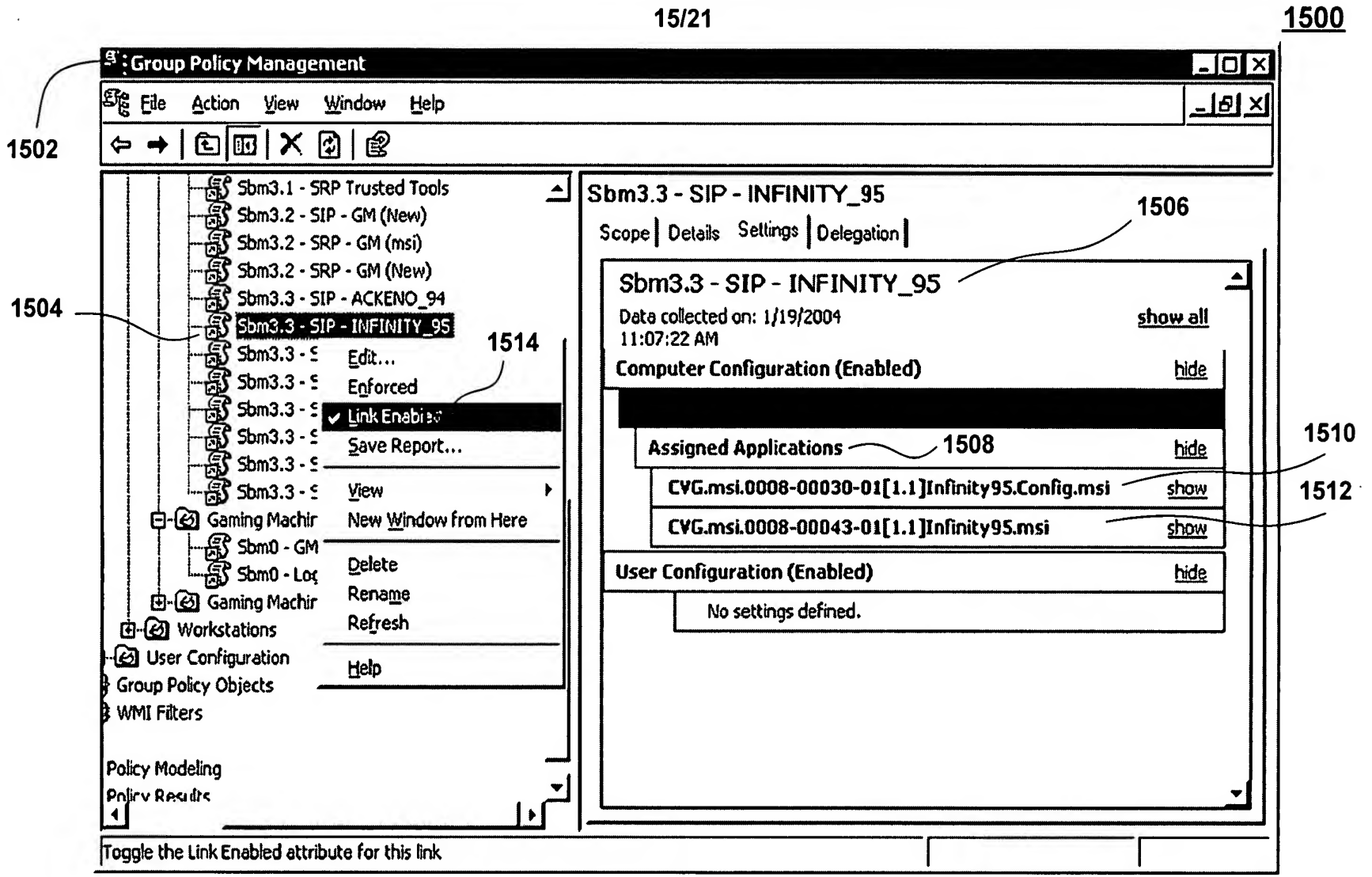
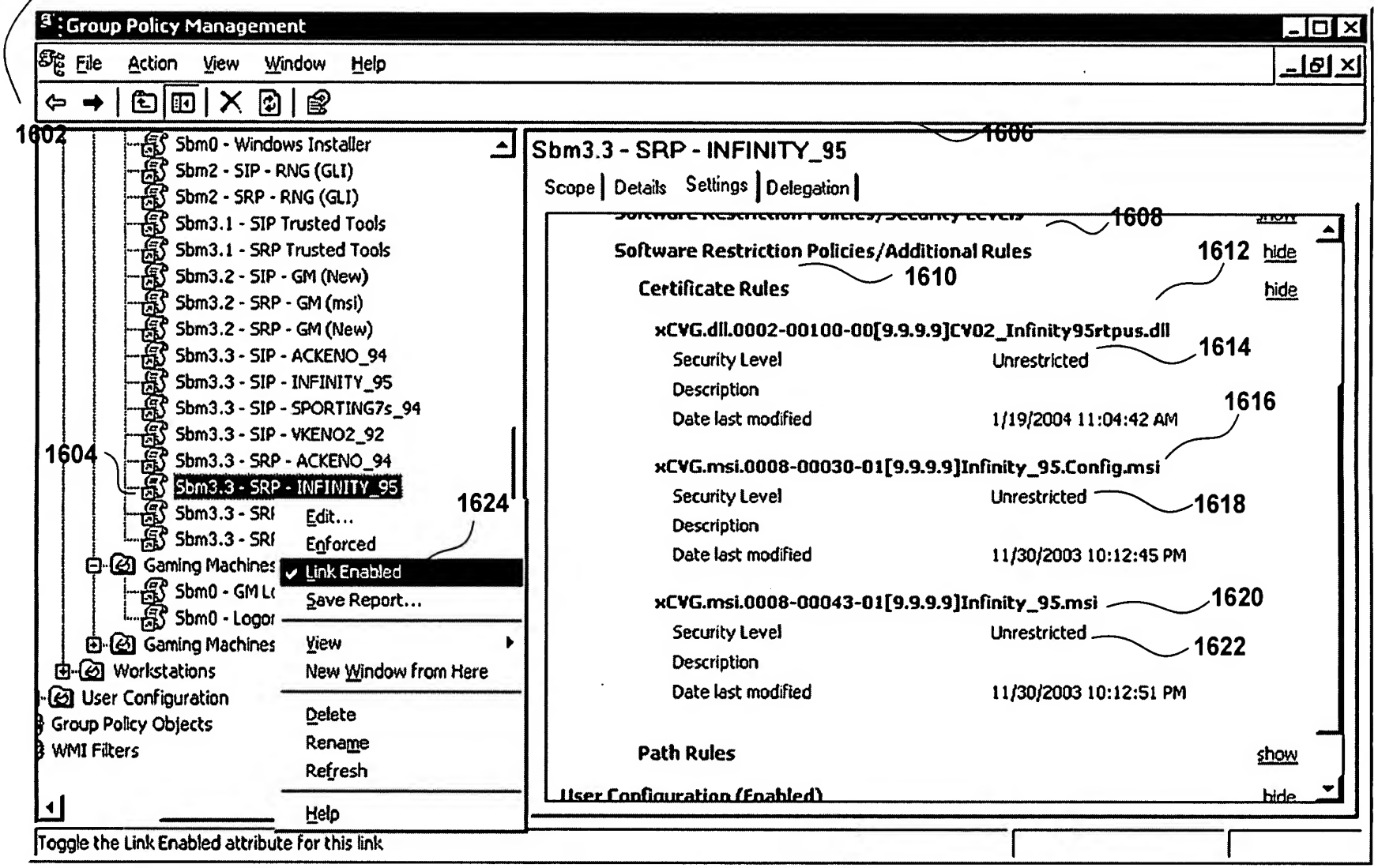

1500
1502
Group Policy Management
File Action View Window Help
Sbm3.1 - SRP Trusted Tools
Sbm3.2 - SIP - GM (New)
Sbm3.2 - SRP - GM (msi)
Sbm3.2 - SRP - GM (New)
Sbm3.3 - SIP - ACKENO_94
1504
Sbm3.3 - SIP - INFINITY_95
1514
Edit...
Enforced
Link Enabled
Save Report...
View
New Window from Here
Delete
Rename
Refresh
Help
Gaming Machir
Sbm0 - GM
Gaming Machir
Workstations
User Configuration
Group Policy Objects
WMI Filters
Policy Modeling
Sbm3.3 - SIP - INFINITY_95
Scope Details Settings Delegation
1506
Sbm3.3 - SIP - INFINITY_95
Data collected on: 1/19/2004 11:07:22 AM
show all
Computer Configuration (Enabled)
hide
Assigned Applications
1508
hide
1510
CVG.msi.0008-00030-01[1.1]Infinity95.Config.msi
show
1512
CVG.msi.0008-00043-01[1.1]Infinity95.msi
show
User Configuration (Enabled)
hide
No settings defined.
Toggle the Link Enabled attribute for this link

FIG. 15


Group Policy Management
File Action View Window Help
1602
Sbm0 - Windows Installer
Sbm2 - SIP - RNG (GLI)
Sbm2 - SRP - RNG (GLI)
Sbm3.1 - SIP Trusted Tools
Sbm3.1 - SRP Trusted Tools
Sbm3.2 - SIP - GM (New)
Sbm3.2 - SRP - GM (msi)
Sbm3.2 - SRP - GM (New)
Sbm3.3 - SIP - ACKENO_94
Sbm3.3 - SIP - INFINITY_95
Sbm3.3 - SIP - SPORTING7s_94
Sbm3.3 - SIP - VKENO2_92
Sbm3.3 - SRP - ACKENO_94
1604
Sbm3.3 - SRP - INFINITY_95
Sbm3.3 - SRI
Sbm3.3 - SRI
Gaming Machines
Sbm0 - GM L
Sbm0 - Logor
Gaming Machines
Workstations
User Configuration
Group Policy Objects
WMI Filters
1624
Edit...
Enforced
Link Enabled
Save Report...
View
New Window from Here
Delete
Rename
Refresh
Help
1606
Sbm3.3 - SRP - INFINITY_95
Scope Details Settings Delegation
1608
Software Restriction Policies/Additional Rules
1612
hide
Certificate Rules
1610
hide
xCVG.dll.0002-00100-00[9.9.9.9]CV02_Infinity95rtpus.dll
Security Level Unrestricted
1614
Description
Date last modified 1/19/2004 11:04:42 AM
1616
xCVG.msi.0008-00030-01[9.9.9.9]Infinity_95.Config.msi
Security Level Unrestricted
1618
Description
Date last modified 11/30/2003 10:12:45 PM
xCVG.msi.0008-00043-01[9.9.9.9]Infinity_95.msi
1620
Security Level Unrestricted
1622
Description
Date last modified 11/30/2003 10:12:51 PM
Path Rules
show
User Configuration (Enabled)
hide
Toggle the Link Enabled attribute for this link

1600

FIG. 16

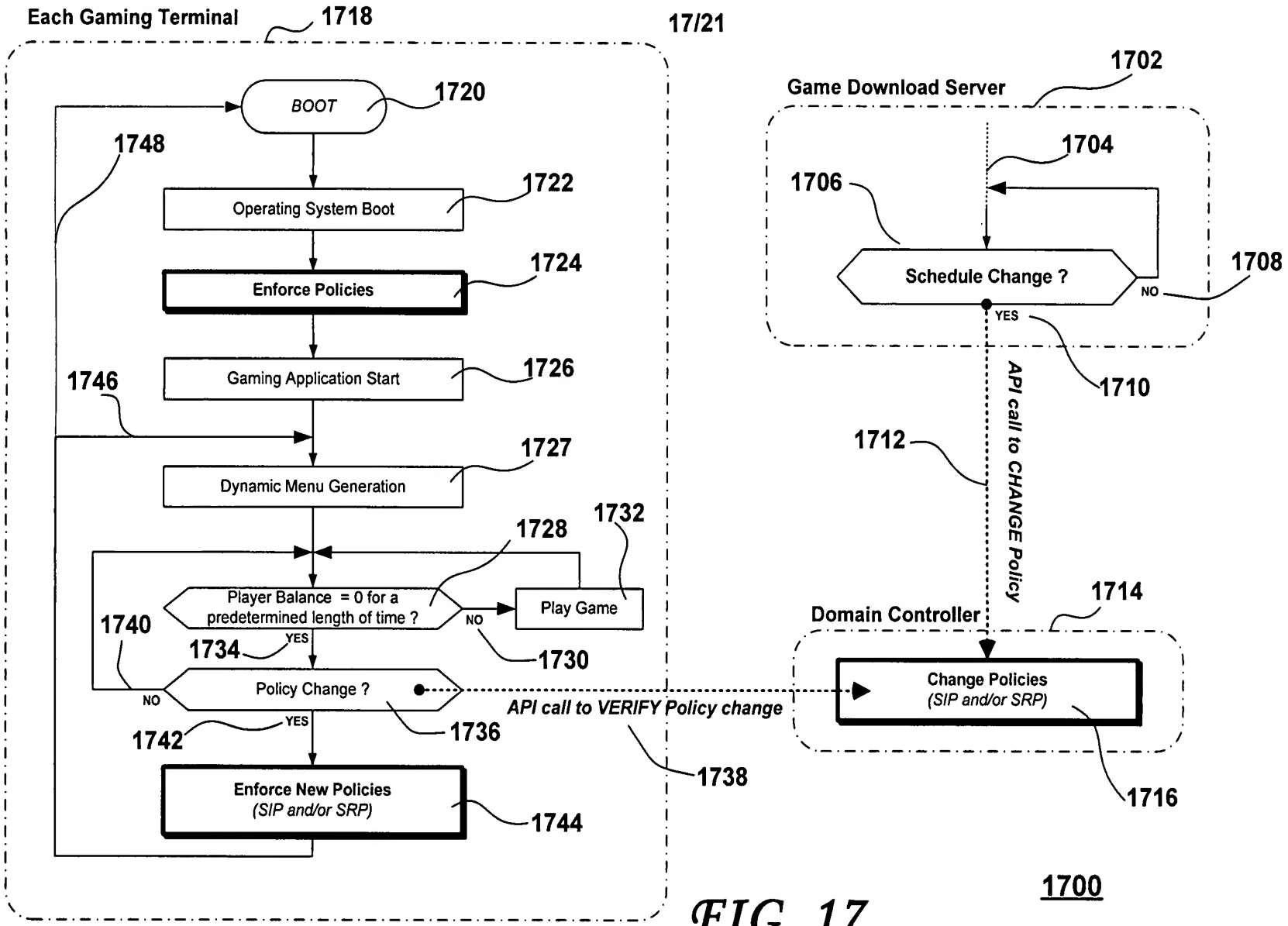

Each Gaming Terminal
1718
17/21
BOOT
1720
1748
Operating System Boot
1722
Enforce Policies
1724
Gaming Application Start
1726
1746
Dynamic Menu Generation
1727
1728
1732
Player Balance = 0 for a predetermined length of time ?
Play Game
NO
1730
1740
YES
1734
NO
Policy Change ?
YES
1742
1736
Enforce New Policies
(SIP and/or SRP)
1744
API call to VERIFY Policy change
1738
Game Download Server
1702
1704
1706
Schedule Change ?
NO
1708
YES
1710
API call to CHANGE Policy
1712
Domain Controller
1714
Change Policies
(SIP and/or SRP)
1716
1700

FIG. 17

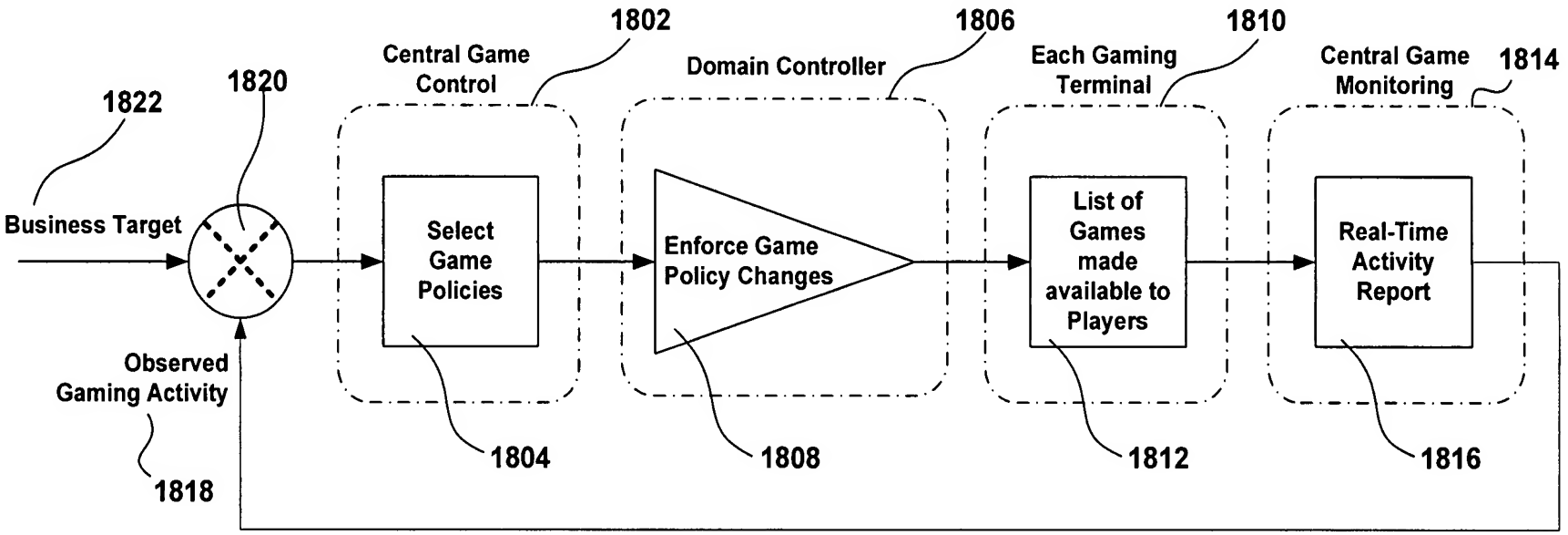

1822
1820
Business Target
Central Game Control
1802
Select Game Policies
1804
Domain Controller
1806
Enforce Game Policy Changes
1808
Each Gaming Terminal
1810
List of Games made available to Players
1812
Central Game Monitoring
1814
Real-Time Activity Report
1816
Observed Gaming Activity
1818
1800

FIG. 18

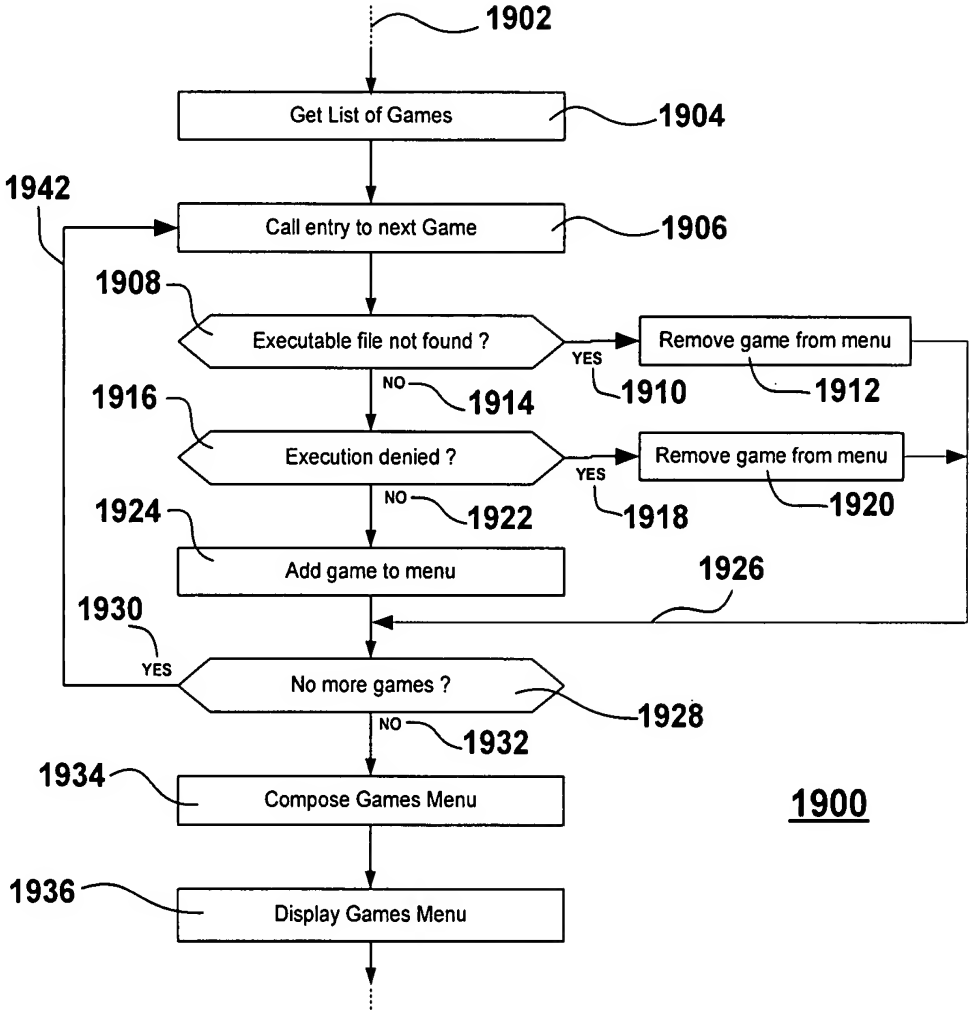

1902
Get List of Games
1904
1942
Call entry to next Game
1906
1908
Executable file not found ?
YES
Remove game from menu
1910
1912
NO
1914
1916
Execution denied ?
YES
Remove game from menu
1918
1920
NO
1922
1924
Add game to menu
1926
1930
YES
No more games ?
1928
NO
1932
1934
Compose Games Menu
1900
1936
Display Games Menu

FIG. 19

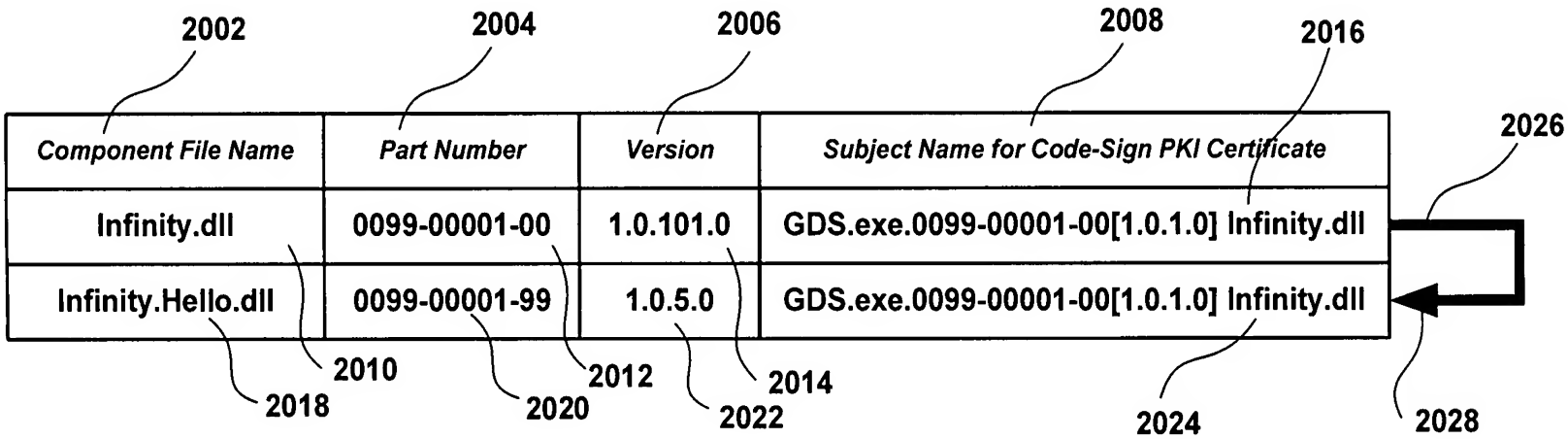

2002
2004
2006
2008
2016
2026
Component File Name
Part Number
Version
Subject Name for Code-Sign PKI Certificate
Infinity.dll
0099-00001-00
1.0.101.0
GDS.exe.0099-00001-00[1.0.1.0] Infinity.dll
Infinity.Hello.dll
0099-00001-99
1.0.5.0
GDS.exe.0099-00001-00[1.0.1.0] Infinity.dll
2010
2012
2014
2018
2020
2022
2024
2028
2000

FIG. 20

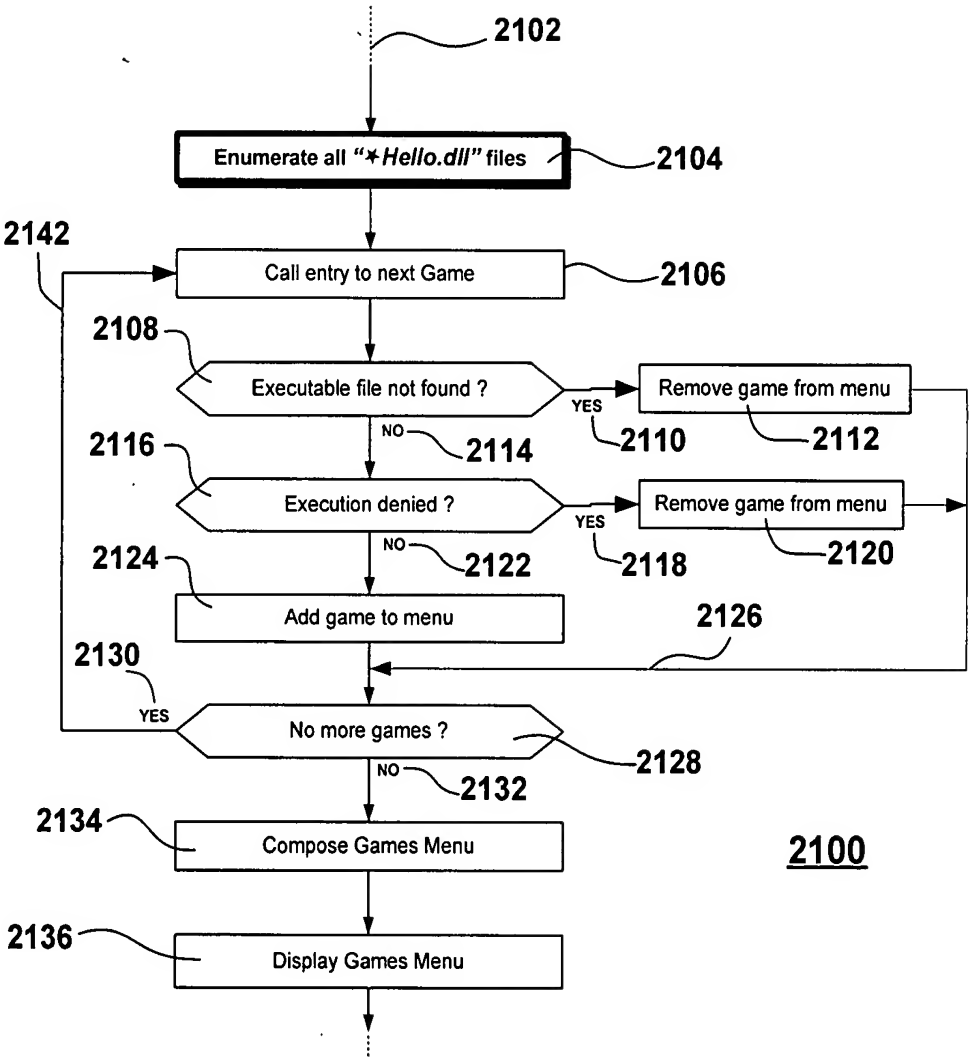

2102
Enumerate all "*Hello.dll" files
2104
2142
Call entry to next Game
2106
2108
Executable file not found ?
YES
Remove game from menu
2110
2112
NO
2114
2116
Execution denied ?
YES
Remove game from menu
2118
2120
NO
2122
2124
Add game to menu
2126
2130
YES
No more games ?
2128
NO
2132
2134
Compose Games Menu
2100
2136
Display Games Menu

FIG. 21